

ABSTRACT

A method and apparatus for a UWB radio utilizing MEMS filtering is described. The method described includes receiving a pulse signal from a transmission station. Once received, a delay line including one or more taps is driven with the pulse signal. Once the pulse signal exits the delay line, the delay line is sampled at each of the taps to determine a time delay and amplitude of each echo in the pulse signal. These steps are repeated for each pulse signal received until a delay/amplitude map of the transmission channel between the stations is complete. Using the echo map, a time delay and amplitude of each echo indicated by the map is determined synthetic and recursive anti-echoes. Accordingly, when transmitting or receiving a signal over the channel, anti-echoes are combined with the signal in order to eliminate channel echoes in a received signal.